



# Overview of DNR Shorebird Projects

Felicia Sanders

Mary-Catherine Martin

Janet Thibault



# Coastal Bird Program



DNR

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## Coastal Birds in South Carolina



<http://www.dnr.sc.gov/wildlife/species/coastalbirds/index.html>



# What We Do in the Coastal Bird Program

## Protect Nesting Sites

- Sign Posting

## Seabird Counts

- Aerial Photography
- Ground Counts

## Rooftop Least Terns

- Fencing
- Chick Wrangling

## Research

- Migration Research (nanotags)
- Graduate Projects
  - Clemson University, Trent University, College of Charleston









# Seabirds

Common Name	Conservation Status
Black Skimmer	Highest Priority, Species of Concern (SC)
Brown Pelican	High Priority
Common Tern	Highest Priority
Forster's Tern	High Priority
Gull-billed Tern	Highest Priority, Species of Concern (SC)
Least Tern	Highest Priority, Threatened (SC)
Royal Tern	Highest Priority
Sandwich Tern	Highest Priority



# Shorebirds

Common Name	Conservation Status
Black-bellied Plover	High Priority
Dunlin	High Priority
American Oystercatcher	Highest Priority
Long-billed Curlew	Highest Priority
Marbled Godwit	Highest Priority
Piping Plover	Highest Priority, Federally Endangered
Red Knot	Highest Priority, Federally Endangered
Ruddy Turnstone	Highest Priority
Sanderling	Highest Priority
Dowitcher	Highest Priority
Western Sandpiper	Highest Priority
Whimbrel	Highest Priority
Wilson's Plover	Highest Priority, State Threatened

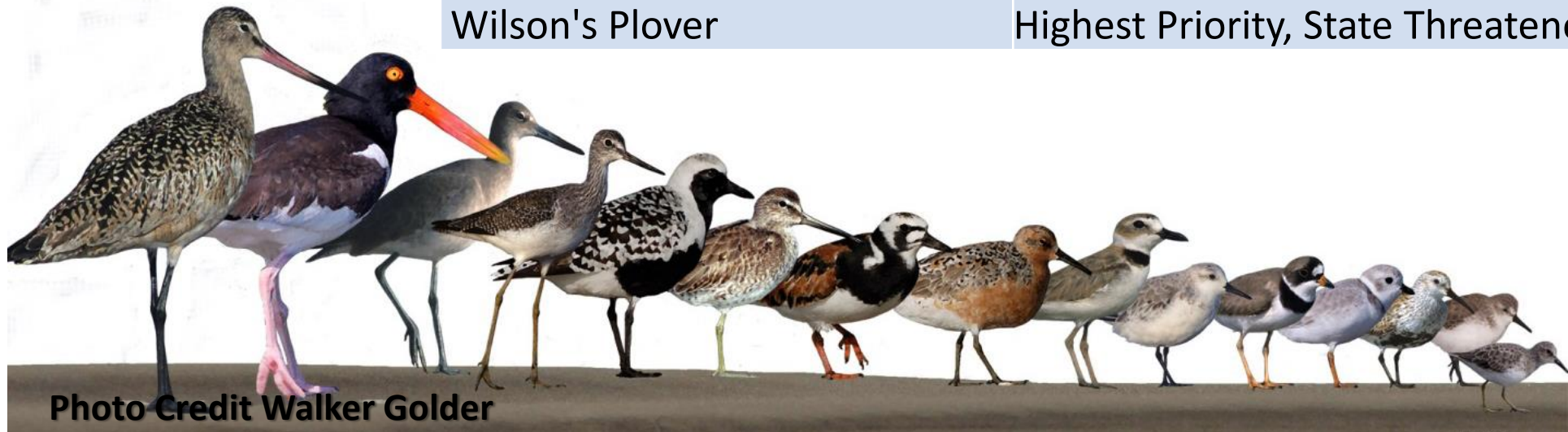
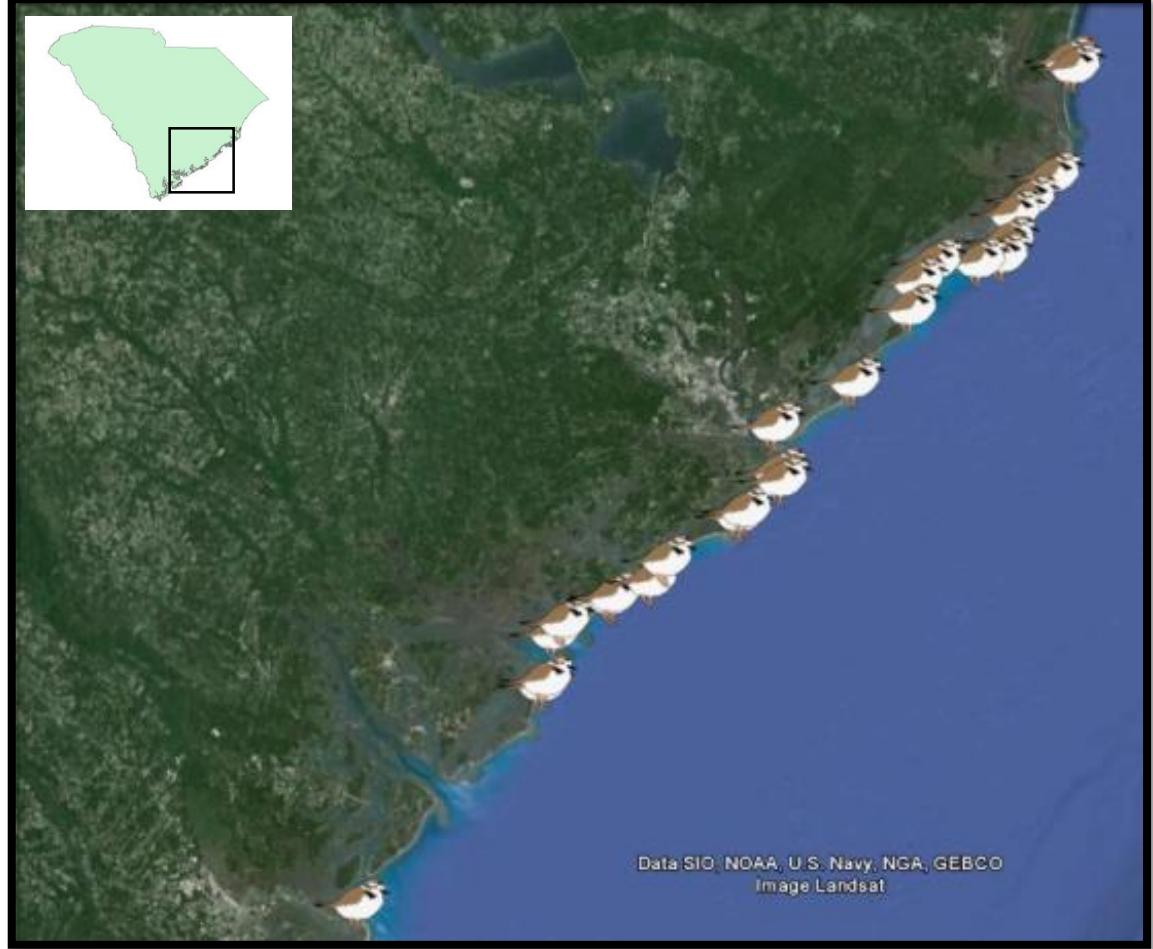


Photo Credit Walker Golder



# Sign Posting



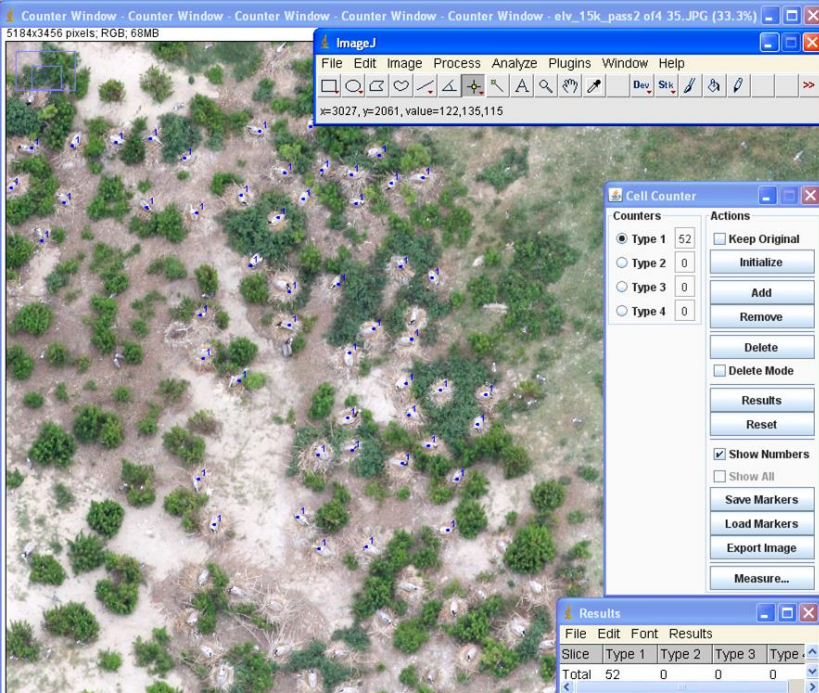




# Annual Counts



**ImageJ**  
Image Processing and Analysis in Java





# Drone Footage of Tomkins Island

Work files/Dotting/2019

1:08 seconds



# Seabird Census Results

Species	2011	2012	2013	2014	2015	2016	2017	2018	2019
Brown Pelican	4,169	4,462	5,396	4,701	5,210	4,268	5,479	5,051	6,109
Royal Tern	6,418	9,412	8,142	7,808	8,443	11,235	8,107	9,340	12,983
Sandwich Tern	2,203	3,036	3,502	2,812	3,414	3,448	2,636	3,525	3,562
Least Tern	1,202	854	576	855	531	1,165	1,141	1,200	1,185
Black Skimmer	798	699	674	799	806	825	901	1,484	1,049





# Migration Research





## LEAST TERNS (*Sternula antillarum*)

- Listed as a South Carolina threatened species
- In 2015 State Wildlife Action Plan is a species of Highest Conservation Priority





**In SC Least Terns nest:**




**50% NATURAL SITES/50% ALTERNATIVE SITES**





# 2019 LEAST TERN SEASON



Total Nests – 1,185  
515 nests at natural sites (8)  
670 nests at alternative sites (16)